**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**Developing a RDMS, p 113-119**

**In creating the database the following is carried out:**

Creating the tables and relationships

Setting up the queries

Input forms

Creating macros

**Testing the solution, p 115**

1. Why is testing carried out?

Testing is a necessary step in problem solving. Testing the product is done to ensure that all features and functions work correctly and that the information produced is free of errors.

1. Distinguish between informal and formal testing.

Informal – Occurs during the development phase. As software developers create a solution, they are constantly to see if the solution behaves according to expectations.

Formal – involves testing the overall solution after it has been completed to see if it solves the problem. This type of testing is formalised with comprehensive documentation of each test and each test outcome.

1. Formal testing:
   1. Bench Test
      1. What does a bench test entail?

A bench test form part of the formal testing process in which sample data, which would have been developed during the design stage, is used to determine how the solution behaves with a rage of data.

* 1. Describe User acceptance testing.

As well testing that the formulas and functions work in the solution, you must ensure that it meets the actual needs of the intended users, usually involves asking users to follow a series of steps to complete a task in the solution or interpreting the information contained in the output, the providing feedback to the developers.

1. Testing validation
   1. Testing should test the boundaries of the validation rule. What does this mean?

It is important in the testing process to choose data that will test the boundaries of the validation rule as well as the data type itself. For example, if the validation rule was set to check for a value between 5 and 10 inclusive, then the test data values would be 4, 5, 6 and 9, 10, 11.

1. Testing the query

Queries need to be tested to ensure that they work correctly. Once you have created a set or test data, manually check the test data to identify the records that meet the criteria specified in the query.

1. Testing formulas

Regardless of the location of formulas (usually queries, forms and reports), each on needs to be tested. It is a matter of choosing appropriate test data for which it is easy to determine if the final result is accurate or not.

1. During which stage of the PSM does testing take place?

Development stage.

1. Why is testing performed during this stage?

To ensure correct data.